

NETGEAR™

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Support Information
See Support Information Card for phone numbers.

Internet / World Wide Web

Go to <http://www.NETGEAR.com> for the NETGEAR Web page.
Defective or damaged merchandise can be returned to your point-of-sale representative.

IMPORTANT!

Please register online. YOU MUST REGISTER TO OBTAIN TECHNICAL SUPPORT. PLEASE RETAIN PROOF OF PURCHASE and this warranty information. To get product support, or to obtain product information and NETGEAR product documentation, direct your Web browser to the <http://www.NETGEAR.com> Web page.

To register online, direct your Web browser to the <http://www.gearguy.com/pub/registration> Web page. If you do not have access to the World Wide Web, you can complete the enclosed registration card and mail it to NETGEAR customer service.

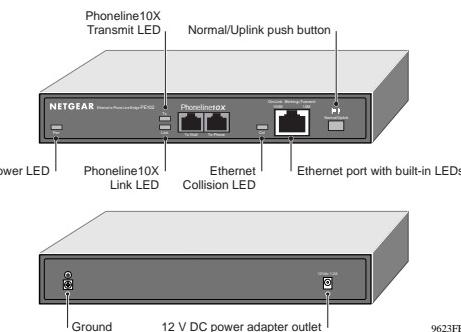


October 2000

START HERE

NETGEAR's PE102 Ethernet to Phone Line Bridge seamlessly extends your high-speed Internet connection, or your existing Ethernet network, to any room in your house with a telephone jack. Using NETGEAR's Phoneline10X products, create a home network using your existing telephone wiring without any interference to your telephone service. Home networks enable your cable modem or DSL connection to be used by multiple PCs at the same time.

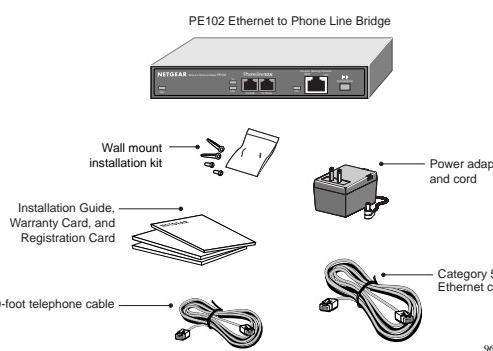
PRODUCT ILLUSTRATION



PLAN YOUR TIME

The estimated setup time for this product is only 5 minutes with an existing Ethernet network. The total time required to install the complete Phoneline10X or Ethernet network will vary, based on each device that you add to the network.

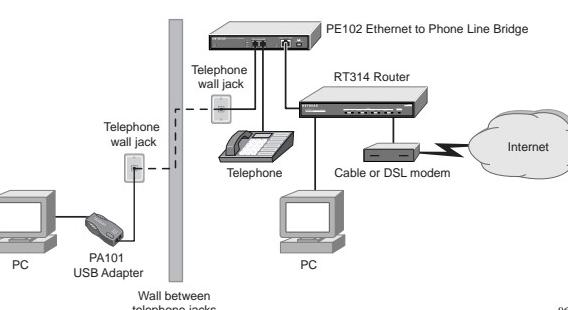
1 VERIFY PACKAGE CONTENTS



Make sure that your package contains the following:

- PE102 Ethernet to Phone Line Bridge
- Power adapter
- 10-foot telephone cable
- Category 5 Ethernet cable
- Wall mount hardware
- Installation Guide, Warranty Card and Registration Card

2 TYPICAL APPLICATION



3 PREPARE THE SITE

Before you begin installing the PE102, prepare the installation site. Make sure the site meets the operating environment requirements of the equipment.

Characteristic Requirement

Temperature	Ambient temperature between 0 and 40°C (32 and 104°F).
Humidity	90% maximum relative humidity, non-condensing.
Ventilation	Minimum 2 inches (5.08 cm) on all sides for cooling. Adequate airflow in room or wiring closet.
Operating conditions	At least 6 feet (1.83 m) to nearest source of electromagnetic noise (such as photocopy machine or arc welder).
Service access	Minimum 12 inches (19.68 cm) front and back for service access and maintenance. Front and back clearance for cables and wiring hardware, such as punchdown blocks.
Power	Adequate power source within 6 feet (1.83 m).
Wiring hardware	Wiring hardware, such as punchdown blocks or patch panels, complete before installing the PE102.

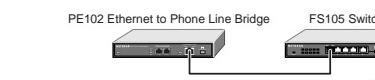
4 INSTALL THE PE102

Wall Mounting (optional)

1. Set the mounting screws and anchors (supplied with the wall mount hardware) in the wall.
2. Using the slots on the bottom of the PE102, hang the PE102 on the wall.
3. Connect the power cord(s), first to the power entry receptacle on the PE102 rear panel, and then to the wall.

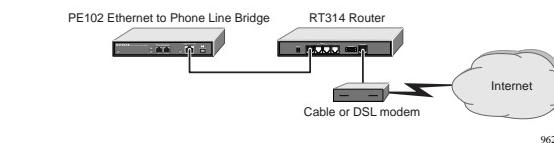
Connect the Ethernet Device to the PE102

Connect the Ethernet port of the PE102 to any Ethernet device, such as a hub, switch or router. After the connection has been made and power has been applied to both devices, make sure that the Link indication is active.



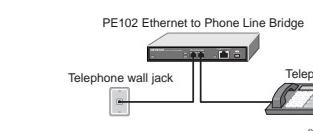
Share your Cable or DSL Modem

You can connect the PE102 directly to a cable or DSL modem. Combined with a RT314 Router, this will allow you to share your Internet connection with multiple PCs in your home.



Connect your Bridge to the Telephone Jack

Use the supplied 10-foot telephone cable to connect the PE102 to the telephone wall jack. Connect one end of the cable to the port labeled "To Wall". Connect the other end of the cable to the wall jack. If you have a telephone or a fax machine, connect either one to the port labeled "To Phone".

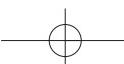


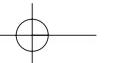
5 VERIFY THE INSTALLATION

When installation is completed and power has been applied to the PE102, the following conditions should exist:

- Power LED is on.
- Link LED at both the Ethernet port and the Phoneline10X port is on as long as another active device is attached to each of these networks.

If there are any problems, refer to the Troubleshooting table.





6 TROUBLESHOOTING

Symptom	Cause	Solution
Ethernet Link LED OFF or intermittent	Port connection not functioning	Make sure the power cord is properly connected and functioning. Check the crimp on the RJ-45 connectors and make sure that the plug is properly inserted and locked into the port at both the hub and the device. Make sure cabling is Category 5 and meets the requirements for 100 Mbps operation. Check Link LEDs on attached Ethernet devices or the network adapter cards. Make sure cables and connectors are correct.
	Normal/Uplink push button in the wrong position	Check the Normal/Uplink push button on the front panel.
Ethernet Collision LED ON or blinking	Collisions taking place on network segment(s)	Excessive collisions can be caused by incorrect cabling, connectors, or wiring techniques, or can occur when the network is too busy. Ensure that the PC at the far end is set to half-duplex mode and is operating properly.
Phoneline10X Link LED is not ON	Port connection not functioning	Make sure that the telephone cable is connected between the PE102 port labeled "to Wall" and the telephone wall jack. Make sure there is at least one other PC or Bridge ON and connected to the Phoneline10X Bridge.
Phoneline10X Link LED flashes ON and OFF	Telephone or fax connected to the Phoneline10X port.	Make sure the telephone cable attached to the telephone or fax machine is at least 5 feet long.

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Trademarks

NETGEAR is a trademark of NETGEAR, Inc.

All other trademarks and registered trademarks are the property of their respective owners.

Statement of Conditions

In the interest of improving internal design, operational function, and/or reliability, NETGEAR reserves the right to make changes to the products described in this document without notice.

NETGEAR does not assume any liability that may occur due to the use or application of the product(s) or circuit layout(s) described herein.

Certificate of the Manufacturer/Importer

It is hereby certified that the Model PE102 Ethernet to Phone Line Bridge has been suppressed in accordance with the conditions set out in the BMPT-AmtsblVfg 243/1991 and Vfg 46/1992. The operation of some equipment (for example, test transmitters) in accordance with the regulations may, however, be subject to certain restrictions. Please refer to the notes in the operating instructions. Federal Office for Telecommunications Approvals has been notified of the placing of this equipment on the market and has been granted the right to test the series for compliance with the regulations.

VCCI Statement

This equipment is in the Class B category (information equipment to be used in a residential area or an adjacent area thereto) and conforms to the standards set by the Voluntary Control Council for Interference by Data Processing Equipment and Electronic Office Machines aimed at preventing radio interference in such residential areas.

When used near a radio or TV receiver, it may become the cause of radio interference.

Read instructions for correct handling.

Federal Communications Commission (FCC) Compliance Notice: Radio Frequency Notice

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

>Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

EN 55 022 Declaration of Conformance

This is to certify that the Model PE102 Ethernet to Phone Line Bridge is shielded against the generation of radio interference in accordance with the application of Council Directive 89/336/EEC, Article 4a. Conformity is declared by the application of EN 55 022 Class B (CISPR 22).

7 TECHNICAL SPECIFICATIONS

Network Ports	One 10/100 Ethernet port One 10 Mbps Phoneline 10X port
Ethernet Standards Compliance	IEEE 802.3i 10BASE-T Ethernet IEEE 802.3u 100BASE-TX Fast Ethernet
Phoneline Networking Standards	Compatible with HPNA 2.0 standard Backwards compatible with HPNA 1.0 standard
Status LEDs	
Unit	power
Ethernet	link, 10 or 100 Mbps, transmit, collision
Phoneline 10X	link, transmit
Power Adapter	12 V DC 1.2A
Dimensions	W 158 mm (6.2") D 103 mm (4.1") H 25 mm (1.0")
Weight	0.4 kg (0.87 lb)
Environmental Specifications	Operating temperature: 0 to 40°C (32 to 104°F) Operating humidity: 90% maximum relative humidity, noncondensing
Electromagnetic Emissions	FCC Part 15 Class B
Warranty	Bridge – 5 years Power adapter – 1 year